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Ymateb gan: BCS, The Chartered Institute for IT

Welsh Parliament
Economy, Infrastructure and Skills Committee
Remote Working: Implications for Wales

Evidence from: BCS, The Chartered Institute for IT

BCS - The Chartered Institute for IT's response to Senedd Cymru Welsh parliament's Consultation on 'Remote Working: Implications for Wales'

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Who we are - BCS, The Chartered Institute for IT

BCS is the UK's Chartered Institute for IT. The purpose of BCS as defined by its Royal Charter is to promote and advance the education and practice of computing for the benefit of the public.

We bring together industry, academics, practitioners, and government to share knowledge, promote new thinking, inform the design of new curricula, shape public policy and inform the public.

As the professional membership and accreditation body for IT, we serve over 60,000 members including practitioners, businesses, academics, and students, in the UK and internationally.

We also accredit the computing degree courses in ninety-eight universities around the UK. As a leading IT qualification body, we offer a range of widely recognised professional and end-user qualifications.

BCS has a strong presence in Wales, we work across academia, industry, the public sector, and civil society with a number of active member communities and specialist groups operating across the country.

What do you think are the positive and negative impacts of Welsh Government's remote working proposals on the bullets outlined below, and what is the evidence and reasons for those impacts?

The economy and business & city/town centres:

Home working presents both opportunities and challenges for organisations and individuals. Undoubtedly, homeworking can have a positive impact on staff attendance, wellbeing, and productivity and provide organisations with the opportunity to reinvest money in other vital areas such as employee development. It can also increase risks to data management, data security, online harms, and the social impacts of longer-term home working on our communities are still unclear.

Different organisations, sectors and communities will have different resources and needs concerning their digital transformation and ability to facilitate effective and secure home working. For example, tech companies and tech start-ups are particularly well placed to benefit from more flexible workplace arrangements such as home working, especially in Wales with a supportive ecosystem and infrastructure, affordable living, access to further and higher education and funding, , and a growing economy[1].

The Welsh Government's goal of 30%[2] of the working population working remotely means the number of office workers in city and town centres will decrease. This will release office space, presenting immediate challenges around occupancy, however if managed effectively and in consultation with business and industry; strategic investment in improved, modernised spaces with facilities unaffordable or unavailable at home will present opportunities to bring new and innovative business, learning and networking opportunities to city and town centres. Expanding and enhancing digital economies and innovation across city and town centres by reinventing vacant office space will provide benefits distributed more evenly across Wales[3]. A significant benefit of the digital transformation undertaken during the Covid-19 pandemic is that many organisations are preparing for a blended approach of remote working and physical office presence.

The South East Wales Transport Commission[4] wants to reduce commuting time and increase remote working opportunities providing these are accessible for all with suitable equipment and infrastructure. BCS is supportive of these efforts if there is sufficient investment in both digital infrastructure and skills.

Issues affecting the workforce, and skills
Employment and Skills

Latest figures from the Office for National Statistics[5] (ONS) show that Wales experienced the steepest rise in unemployment between August and October of any nation or region of the UK with unemployment in Wales rising by 22,000 compared with the previous three months.

The rate of people not available for work is now at 24% compared with 20.8% for the wider UK meaning there were 459,000 "economically inactive" people in Wales, 8,000 more than in July, and 22,000 more than the same time last year.

The ONS' UK payroll data showed the hospitality sector had been the most severely affected, followed by wholesale and retail and manufacturing. BCS is clear that these recent job-losses provide

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[1] https://wcic.tech/wales-is-the-perfect-startup-location/
[2] https://gov.wales/aim-30-welsh-workforce-work-remotely
[3] https://www.cfr.org/in-brief/economic-effects-working-home
[4] https://gov.wales/south-east-wales-transport-commission
[5] https://www.ons.gov.uk/employmentandlabourmarket/peoplenotinwork

opportunities for a co-ordinated approach involving Welsh Government, UK Government, the public, private and third sectors to upskill this cohort of workers in key strategic areas such as IT and digital skills.

This support for individuals should be delivered alongside work to facilitate development of Trusted Local Networks (TLN)[6]. This is a flexible model involving the development of strategic structured collaboration across local businesses and communities to identify and build the digital technological capability necessary to aid recovery from the current economic shock of the Covid-19 pandemic. This may for example involve small and medium size enterprises (SMEs) working together and with other SMEs and with larger organisations in their TLN to get the most out of cloud technology. The role of Welsh Government here is critical to provide strategic direction, oversight, and targeted funding to effect change.

Research shows that having specific digital skills can reduce the risk of roles being automated by 59%, whilst jobs that require digital skills carry a larger wage premium of around 29%[7], in a country where tech companies are flourishing, this provides a real opportunity to create high-value, well paid jobs and for the digital skills gap to be narrowed. Fostering a digital-first approach[8] in prioritised areas but eventually all sectors of the economy is critical to safeguard the Welsh economy and strengthening public service resilience. Certain industries have already made huge strides in this area; according to the McKinsey Global Survey of executives[9] "companies have accelerated the digitization of their customer and supply-chain interactions and of their internal operations by three to four years, and the share of digital or digitally enabled products in their portfolios has accelerated by a shocking seven years". Welsh Government is uniquely placed to work with stakeholders from across the economy and communities to identify areas of market failure and develop targeted support so that all sectors and communities benefit from digital transformation and home working. Embedding digital transformation across all sectors, regions, and communities, would make Wales an increasingly attractive place to visit, live and do business, in that although locations may be rural, they will always be connected.

Education initiatives should be reviewed in the context of robust local digital first strategies, aligned to a Welsh and wider UK digital strategies, supported by local government, business and the third sector. Wales should determine what business capability and capacity it has, what it could achieve through new digital first business models, and how that could improve productivity. This aligns to the recent Welsh Government review of Digital Innovation for the Economy[10] in ensuring organisations are equipped with suitable digital skills that are adaptable for the future as we face mass automation and continued upheaval as the fourth industrial revolution continues. Nonetheless, increasing societies digital skills will support economic growth and expand job opportunities as digital skills increase everyone's ability to access vital skills, information, and resources.

Many children, especially amidst the Covid-19 pandemic are experiencing the realities of digital poverty, potentially stymieing their acquisition of digital skills. BCS welcomes the commitments in

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[6] https://pictfor.org.uk/wp-content/uploads/2020/05/PICTFOR-Covid-19-stakeholder-input-report-April-2020-1-2.pdf

[7] https://www.gov.uk/government/publications/current-and-future-demand-for-digital-skills-in-the-workplace

[8] Digital-first means approaching any new opportunity, or problem, with the assumption that the solution should be *as digital as possible* - https://medium.com/thehumanlayer/digital-first-the-essential-modern-business-mindset-9e116f61407e

[9] https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/how-covid-19-has-pushed-companies-over-the-technology-tipping-point-and-transformed-business-forever#

[10] https://gov.wales/review-digital-innovation-economy-and-future-work-wales

the new Curriculum for Wales (introduced from September 2022)[11], providing children with digital competence as a mandatory cross-curricular skill and adopted by all education establishments. It is vital that children develop as digitally competent and ethical thinkers to share in the benefits of digital technology and build a pipeline of professional, ethical, individuals competent in IT and digital skills regardless of their career.

Diversity and Inclusion

Recent research suggests that remote working could have a detrimental effect on diversity and inclusion programmes[12].76% of workers in England and Wales work in an ethnically diverse setting; home working has the potential to reduce the direct exposure and interaction people have with people from other cultures and identities.

Research[13] by the Woolf Institute at the University of Cambridge recommends that the workplace was a 'safe bet' for the integration of communities and inclusive environments and found that people in Wales were more likely to have negative connotations around diversity, than people living in London[14]. The longer-term societal impacts of home working and the impact on community cohesion, prejudice and discrimination are unknown and Welsh Government may wish to consider these carefully in its planning for supporting home and flexible working and factoring this into its equality impact assessment.

The Covid-19 pandemic has impacted different communities in different ways, 58% of Black and Minority Ethnic (BAME) communities are experiencing financial hardship or redundancy, Compared to 47% of white workers[15]. As a consequence, targeted training, reskilling initiatives and support around digital skills should be deployed to communities to address this inequality, improve resilience to change relating to digitisation, home working and automation as well as helping to bring more diverse talent into the IT and digital industries.

As an output of Covid-19, flexible working has really become a huge benefit for many, especially those from minority groups. For example, a disabled employee may benefit from home working for several reasons, including a lack of commuting and being able to work in the comfort of their home, which has likely been adapted to suit their needs[16]. Conversely, people with neurodivergent attributes – which is around 1 in 7 people in the UK , may struggle with homeworking elements such as video calls[17], so employers need to be aware of provisions and adjustments that need to be made when hiring people with protected characteristics.

Organisations increasing remote working, and start-ups establishing their business within the Welsh economy must provide their employees and their customers with the suitable environment and technology to foster and speak the Welsh language under the guidance of the Welsh Government annual report on compliance with Welsh Language Standards 2019 to 2020[18]. It is important to BCS

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[11] https://hwb.gov.wales/curriculum-for-wales
[12] https://www.ft.com/content/49bf68bc-a785-4b59-8149-292de991a396
[13] https://www.woolf.cam.ac.uk/research/projects/diversity
[14] https://www.hrmagazine.co.uk/article-details/remote-work-could-be-damaging-relations-between-different-ethnic-groups-in-england-and-wales-1
[15] https://www.turn2us.org.uk/About-Us/Media-Centre/Press-releases-and-comments/BAME-workers-take-biggest-financial-hit-from-coron
[16] https://www.peoplemanagement.co.uk/experts/legal/remote-working-and-disabled-employees
[17] https://www.sheffield.ac.uk/hr/wellbeing/neurodiversity
[18] Welsh Government annual report on compliance with Welsh Language Standards 2019 to 2020

Members in Wales that the office of the Welsh Language Commissioner[19] is involved in this process and that digital transformation and home working presents no detriment to the Welsh language.

Connectivity, Digital Poverty & Data

Internet connectivity is something employers will have to investigate when confirming permanent or flexible remote working. In 2019 Ofcom found only 31% of homes in Wales can get ultrafast broadband, 12% can get full fibre broadband, around 15,500 homes in rural Wales do not have access to 'decent' broadband. Mobile coverage remains patchy in Wales with 11% classed as 'no coverage' spots[20]. Welsh data poverty is highlighted in research completed by Nesta and YLab and determines that data poverty is:

- A major problem for disadvantaged groups
- Creates barriers to people accessing the data they need including low income, not being able to get a data contract, lack of privacy and local infrastructure
- The impact of these barriers is greater in combination and for those who have higher data needs

The report recommends that more research is needed to understand the costs of data, how many people are data poor and which groups are most vulnerable to data poverty[21]

OpenReach (BT)[22] released some immediate traffic data (Petabytes) prior to the beginning of the Coronavirus pandemic and then again at the height of the first lockdown. This data showed more network traffic due to adult's homeworking and children engaging with home-schooling. The figures in the table below give an indication of the level at which infrastructure will need to operate at more permanently as we increase home working.

	W/C 24th Feb 2020	W/C 20th April 2020	Increase
Wales	70.7	84.17	19.95%

For the economy to host successful companies it is essential that internet infrastructure can cope with our changing ways of working. Better digital infrastructure and connectivity is vital to the success of organisations operating in this economy, the majority of companies produce and process huge files, gaming, video, medical, design blueprints, big data etc all require good connectivity to operate. Any company can have the latest technology but if the infrastructure, fibre and 4/5G coverage is not optimised it will stymie the opportunities for the economy and investment. The National Infrastructure Commission for Wales[23] has concluded that households and businesses stand to gain substantial economic benefits from both fibre to the home and 5G. The quality of this digital infrastructure is critical in determining where new, high growth businesses locate and where job

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[19] https://gov.wales/welsh-language-commissioner
[20] https://www.ofcom.org.uk/about-ofcom/latest/media/media-releases/2019/latest-broadband-and-mobile-coverage-figures-for-wales-revealed
[21] https://www.nesta.org.uk/report/what-data-poverty/
[22] https://www.ispreview.co.uk/index.php/2020/04/covid-19-impact-openreachs-network-traffic-by-uk-region.html
[23] https://gov.wales/national-infrastructure-commission-wales-annual-report-2020

seekers and entrepreneurs choose to live, fast, reliable broadband is fundamental. Too many parts of Wales still lack adequate broadband connectivity and opportunities are already being lost[24].

Data privacy is a risk for all organisations and individuals, but the introduction of large-scale home working has introduced increased risks without clearly defined responsibility on the individual as well as the employer. These risks and responsibilities should be clarified, promoted, and mitigated through iterative and meaningful data protection training.

Home working presents different challenges to office working from data and cyber security perspectives which are not yet entirely understood. Increased, collaboration between the Welsh Government and UK Government agencies such as the National Cyber Security Centre[25] is fundamental in understanding the risks of this new shift in the ways we work and developing a resilient approach to home working that does not compromise data security.

Health (physical and mental) and wellbeing

Home workers are potentially more vulnerable to online harms, especially if they do not have up to date digital skills and an understanding of how to navigate and respond appropriately to negative online behaviour. Four out of five adult internet users have concerns about going online, relating to things like hacking and privacy[26]. The Welsh Government may wish to look at this potential vulnerability for home workers within its wider considerations around online harms, it is unclear how much home or remote working will be considered within the scope of the UK Government's Online Harms White Paper[27]. Training and support for staff when homeworking will be required to ensure access to harmful sites is avoided and employees are prepared how to understand and navigate the internet and potential online threats.

What could Welsh Government learn from the approach taken in other parts of the UK, Europe and globally to support remote working and/or develop community hubs to support remote working? Are there any specific examples of evidence and research internationally that the Committee should be aware of?

As identified above, The Welsh Government, business and communities can work together to create 'Trusted Local Networks'. These will be cross-sector communities of practice made up of technology, education and business professionals that provide strategic structured collaboration across local businesses to identify and build the digital technological capability necessary to aid recovery from the current economic shock of the coronavirus pandemic, but also to improve productivity and develop new business opportunities. Here is how they would operate[28]

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[24] https://gov.wales/sites/default/files/publications/2020-12/executive-summary-digital-communications-infrastructure-in-wales-report-and-recommendations_0.pdf

[25] https://www.ncsc.gov.uk/

[26] https://www.gov.uk/government/consultations/online-harms-white-paper/outcome/online-harms-white-paper-full-government-response#part-3-the-regulator

[27] https://www.gov.uk/government/consultations/online-harms-white-paper/online-harms-white-paper

[28] https://www.bcs.org/media/6243/economic-performance.pdf

Local Businesses

Gap Analysis through Diagnostic Tools

Trusted Local Network
Peer to Peer support to:
- ❑ Identify desired business outcomes in local context with expert help and challenge
- ❑ Identify strategy and services to achieve outcomes

Access tailored services for local businesses from corporates

Trusted Local Network
Peer to Peer support to:
- ❑ Develop formative evaluation for businesses to assess impact
- ❑ Advice and guidance during implementation of services and evaluation of impact

National Coordination
- ❑ Gather quantitative and qualitative evidence
- ❑ Develop case studies that are applicable in range of contexts
- ❑ Identify good practice
- ❑ Develops scalable, sustainable, exemplars
- ❑ Expands local network model to other regions